DON P. CHAMBERS

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Education:

B.S., Aerospace Engineering, University of Texas at Austin, December 1990.

Ph. D., Aerospace Engineering, The University of Texas at Austin, December 1996.

Supervisor: Byron D. Tapley

Title of Dissertation: Time-Varying Sea Surface Topography from Satellite Altimetry

Professional Experience:

June 2018 – present	Professor, College of Marine Science, University of South Florida
Aug. 2009 – June 2018	Associate Professor, College of Marine Science, University of South Florida
Sept. 2003 – Aug. 2009	Research Scientist, Center for Space Research, The University of Texas at Austin
June 2000 – Aug. 2003	Research Associate, Center for Space Research
Aug. 1997 – May 2000	Research Engineer/Scientist Associate IV, Center for Space Research
Jan. 1997 – Aug. 1997	Postdoctoral Fellow, Center for Space Research

Honors and Awards:

2018, University of South Florida Outstanding Faculty Award

2017, elected Fellow, American Geophysical Union: "For outstanding contributions to sea level research and ocean dynamics using satellite observations."

2013, Geodesy Section Bowie Lecture, American Geophysical Union: "Using Geodesy to Better Understand Ocean Dynamics"

2008, Geodesy Section Award, American Geophysical Union: "For pioneering satellite geodetic investigations of global ocean circulation and sea level change"

2003, NASA Group Achievement Award for Jason-1 Project Team

2003, NASA Group Achievement Award for GRACE Project Team

Member, US CLIVAR Panel on Phenomena, Observations, and Synthesis, 2010-2013

Meijers, A. J. S., M. P. Meredith, E. J. Murphy, **D. P. Chambers**, M. Belchier, E. F. Young (2019) The role of ocean dynamics in king penguin range estimation. *Nature Climate Change*, *9*, 120-121, https://doi.org/10.1038/s41558-018-0084-2.

<u>2018</u>

WCRP Global Sea Level Budget Group (2018) Global sea-level budget 1993–present, *Earth Syst. Sci. Data, 10*, 1551-1590, https://doi.org/10.5194/essd-10-1551-2018. (I

Kosempa*, M., and **D. P. Chambers** (2016), Mapping error in Southern Ocean transport computed from satellite altimetry and Argo, *J. Geophys. Res. Oceans*, *121*, doi:10.1002/2016JC011956.

- **Chambers D.P.**, and G.T. Mitchum (2016) Observing modern-day sea level rise and predicting the future, In: A. Hine, D. P. Chambers, T. D. Clayton, M. R. Hafen, and G. T. Mitchum (editors) *Sea Level Rise in Florida: Science, Impacts, and Options*, 1st edition, University Press of Florida, ISBN 978-0-8130-6289-1.
- Wahl**, T., and **D. P. Chambers** (2016), Climate controls multi-decadal variability in U.S. extreme sea level records, *J. Geophys. Res. Oceans*, 121, doi:10.1002/2015JC011057.
- Yang, Q., T. Dixon, P. Meyers, J. Bonin, **D. Chambers**, and M. van den Broeke (2016) Recent increases in Arctic freshwater flux affects Labrador Sea convection and Atlantic overturning circulation, *Nature Communications*, 7:10525,

Purkey, S. G., G. C. Johnson, and **D. P. Chambers** (2014), Relative contributions of ocean mass and deep steric changes to sea level rise between 1993 and 2013, *J. Geophys. Res. Oceans*, 119, doi:10.1002/2014JC010180.

- Kosempa*, M., and **D. P. Chambers,** (2014) Southern Ocean Velocity and Geostrophic Transport Fields Estimated by Combining Jason Altimetry and Argo Data, 8"+T9;>9;;NUN;9:X!;;VQPxl
- Hartnett, J.J., J. M. Collins, M. A. Baxter, D. P. Chambers (2014), S

Bonin**, J., and **D.P. Chambers**, Evaluation of high-frequency oceanographic signal in GRACE data: Implications for de-aliasing, *Geophys. Res. Lett.*, 38, L17608, doi:10.1029/2011GL048881, 2011.

Chambers, D. P., ENSO-correlated fluctuations in ocean bottom pressure and wind-stress curl in the North Pacific, *Ocean Sci.*, 7, 685-692, doi:10.5194/os-7-685-2011, 2011.

Chambers, D. P.,

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2008-2013	NASA: Building a Climate Record of Sea Level Change F! "0D, 1\$23+%)3"*6%*Total Amount: \$243k
2009-2013	NASA JPL: Assessing the Quality of Aquarius Sea Surface Salinity Measurements Using an Ocean State Estimation System F! "0D, 1\$23+%)3"*/&Institutional PI6&*Total Amount: \$80k&
2008-2012	NASA: Steric Sea Level Variations from a Combination

Understanding Regional Trends in Southern Ocean Eddy Kinetic Energy, presented at

Evaluation of accuracy required by future satellite gravity missions to resolve dynamic ice changes on ice sheets and fronts of the Antarctic Circumpolar Current,

- † Measurements Needed to Understand Causes of Present-Day Sea Level Change, 4th Oceans from Space Symposium, Venice, Italy, 28 April 2010. F\\2\dagger. OC@\$*26
- † Measuring mean ocean mass variability with GRACE, NASA Sea Level Workshop, Austin, TX, 2-3 November 2009 F\\\\\\\\\?\\\\!! 6)C@\\$*20
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- Analysis of basin-scale mass exchange between the Atlantic/Indian Oceans and the Pacific, presented at Fall Meeting of AGU, San Francisco, CA, December, 2008 (<u>D. P. Chambers</u> and J. K. Willis).
- † Measuring sea level change with satellites (Keynote Presentation), presented at the William Smith Meeting on Sea Level, London, England, Sept. 1-2, 2008 (D. P. Chambers).
- † Measuring changes in ocean mass with GRACE, presented at the Pacific Congress on Marine Science and Technology, Honolulu, Hawaii, June 2008 (<u>D. P. Chambers</u>).
- Z6\$\(65 \, 3\\ \) "*\(\D \). \$0 (\$\#3+ \, \\ \\ 7+ \, \\ \\$*E*+ \, 32\\ + \, \(\Lambda \) \ = ! M\\ \] \. \$) \, \(\Lambda \) presented at EGU General Assembly, Vienna, Austria, April, 2008 (D. P. Chambers, R. S. Nerem, and J. K. Willis).
- = ,)#42+2&"'\&#)*\%\$02.)#\$\&".\$), &@"33" C&E*\\$225*\&1)*+)@+#+34&+, &\\$6\&^\"*36\&?).+'+., presented at EGU General Assembly, Vienna, Austria, April, 2008 (D. P. Chambers and J. K. Willis).
- † Causes and effects of sea level rise, Meeting of the National Academy of Sciences Board on Earth Sciences and Resources Mapping Science Committee, Irvine, CA, April 24, 2008 (D. P. Chambers).
- Modes of low-frequency ocean bottom pressure variability in the North Pacific, presented at the 2008 Ocean Sciences Meeting, Orlando, FL, March, 2008 (D. P. Chambers).
- A"L07*\$15\$, .4&K.\$), &W"33"C&?*\$225*\$&-+%,)#2&+, &36&\(^1\)"*36&\(^1\)".+'+., presented at Fall Meeting of AGU, San Francisco, CA, December, 2007 (D. P. Chambers and J. K. Willis).
- † Causes and effects of sea level rise, Meeting of the National Academy of Sciences Board on Earth Sciences and Resources Roundtable "Impacts of Coastal Inundation", Irvine, CA, November 7, 2007 (D. P. Chambers).
- Observing steric sea level variations from a combination of Jason-1, GRACE, and Argo, presented at XXIV Meeting of International Union of Geodesy and Geophysics, Perugia, Italy, July, 2007 (<u>D. P. Chambers</u>).
- Measuring variations in mean ocean mass with GRACE, presented at EGU General Assembly, Vienna, Austria, April, 2007 (D. P. Chambers, M. E. Tamisiea, and R. S. Nerem).
- † Measuring variations in mean ocean mass, presented at "Satellite Observations of the Global Water Cycle Workshop", Irvine, CA, March, 2007 (<u>D. P. Chambers</u>).
- Analysis of Barotropic Sea Level Variations in the North Pacific Observed by GRACE, presented at Fall Meeting of AGU, San Francisco, CA, December, 2006 (<u>D. P. Chambers</u>).
- † Orbit Selection Issues for Wide-Swath Altimeter, presented at Wide-Swath Ocean Sciences and Hydrology Workshop, Arlington, VA, October 2006 (D. P. Chambers).
- † The Potential to Estimate Ocean Thermal Expansion by Combining GRACE and Satellite Altimeter Data,

presented at "Understanding Sea-Level Rise and Variability", World Climate Research Programme Workshop, Paris, France, June 2006 (D. P. Chambers).

Combining Jason-1 Altimetry and GRACE Time-Variable Gravity to Study Steric Sea Level, presented at EGU General Assembly, Vienna, Austria, April, 2006 (<u>D. P. Chambers</u>).

2000-2005

- † Assessment of GRACE Time-Variable Gravity over the Ocean, presented at Fall Meeting of AGU, San Francisco, CA, December, 2005 (<u>D. P. Chambers</u>).
- † The NPOESS Radar Altimeter, presented at Fall Meeting of AGU, San Francisco, CA, December, 2005 (D. P. Chambers, T. J. Urban, B. D. Tapley).
- † Estimating heat storage from a combination of satellite altimetry and GRACE data (keynote address), presented at Dynamic Planet 2005 Conference, Cairns, Australia, August, 2005 (<u>D. P. Chambers</u>)
- Observing Steric Sea Level Variations with GRACE and Satellite Altimetry, presented at Spring Meeting of AGU, New Orleans, LA, May, 2005 (<u>D. P. Chambers</u>)
- † Determination of steric level variations from a combination of altimetry and GRACE, presented at 2nd

Orbit Design Analysis for Future Altimeter Missions, presented at 2002 Ocean Sciences Meeting, Honolulu, HI, February, 2002 (D. P. Chambers

Accuracy assessment of recent global geoid models, presented at Spring meeting of AGU, Boston, MA, May, 1998, (D. P. Chambers, M. C. Kim, J. C. Ries, and B. D. Tapley).

- Measuring heat-storage changes in the tropical Pacific: A comparison between TOPEX altimetry and TAO buoys, presented at Spring meeting of AGU, Baltimore MD, May, 1997, (<u>D. P. Chambers</u>, B. D. Tapley, and R. H. Stewart).
- Assessment of systematic errors in satellite altimetry using tide gauge measurements, presented at Fall meeting of AGU, San Francisco, CA, December, 1996, (<u>D. P. Chambers</u>, G. L. H. Kruizinga, J. C. Ries, C. K. Shum, and B. D. Tapley).
- † Long-period ocean heat storage rates and basin-

Teaching Experience:

ASE372, Satellite Navigation, Dept. of Aerospace Engineering, UT-Austin, Fall, 2000.

ASE366L, Applied Orbital Mechanics, Dept. of Aerospace Engineering, UT-Austin, Spr., 2001-2003.

OCE6934.637, Data Analysis Methods, College of Marine Science, USF, Spring 2010, Fall 2011, Spring 2013-present

OCE6934.637, Active Satellite Oceanography, College of Marine Science, USF, Fall 2010, 2012, 2014,2016,2019

OCE6934.637, Global Water and Energy Cycle, College of Marine Science, USF, Spring 2011, Fall 2013, 2015

OCE6934.637, Dynamics of the Southern Ocean, College of Marine Science, USF, Spring 2012, Fall 2018

OCE6934.637, Atlantic Meridional Overturning Circulation, College of Marine Science, USF, Fall 2019

Student Supervision

At University of Texas

As a Research Scientist, I was not allowed to be an academic advisor for students. However, I was allowed to pay students out of my grants as Graduate Research Assistants and direct their research work, while a Faculty member supervised their academic work. The following students are ones whose research under my supervision comprised the majority of their MS thesis work. I served as a Reader on all the